

Atty. Dkt. No. 047630-0301

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A chimeric protein, which chimeric protein comprises a Flt3 ligand, or a biologically active fragment thereof, and a ~~proteinous~~ proteinaceous or peptidyl tumoricidal agent, wherein said agent inhibits proliferation or reduces viability of tumor cells.
2. (Original) The chimeric protein of claim 1, wherein the tumoricidal agent induces apoptosis.
3. (Original) The chimeric protein of claim 1, wherein the Flt3 ligand, or a biologically active fragment thereof, stimulates the proliferation of hematopoietic stem or progenitor cells.
4. (Original) The chimeric protein of claim 1, wherein the Flt3 ligand, or a biologically active fragment thereof, stimulates the proliferation of cells selected from the group consisting of myeloid precursor cells, monocytic cells, macrophages, B-cells, dendritic cells and NK cells.
5. (Original) The chimeric protein of claim 1, wherein the Flt3 ligand, or a biologically active fragment thereof, is a mammalian Flt3-ligand.
6. (Original) The chimeric protein of claim 1, wherein the mammalian Flt3 ligand, or a biologically active fragment thereof, is a human Flt3 ligand.
7. (Original) The chimeric protein of claim 1, wherein the Flt3 ligand, or a biologically active fragment thereof, is a soluble Flt3 ligand.

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8. (Currently amended) The chimeric protein of claim 1, wherein the Flt3 ligand comprises at least 100 amino acid residues and the Flt3 ligand has at least 40% identity to the amino acid sequence set forth in SEQ ID NO:2, in which the percentage identity is determined over an amino acid sequence of identical size to the amino acid sequence set forth in SEQ ID NO:2, and the Flt3 ligand substantially retains its ~~biological~~ biological activity.
9. (Currently amended) The chimeric protein of claim 1, wherein the Flt3 ligand binds to an antibody that specifically binds to an amino acid sequence set forth in SEQ ID NO:2 and the Flt3 ligand substantially ~~retains~~ retains its ~~biological~~ biological activity.
10. (Original) The chimeric protein of claim 1, wherein the Flt3 ligand comprises the amino acid sequence set forth in SEQ ID NO:2.
11. (Original) The chimeric protein of claim 1, wherein the Flt3 ligand comprises an amino acid sequence that is at least 80% identical to amino acids 28 to 128 of SEQ ID NO:2.
12. (Original) The chimeric protein of claim 1, wherein the Flt3 ligand comprises amino acids 28 to 128 of SEQ ID NO:2.
13. (Original) The chimeric protein of claim 1, wherein the Flt3 ligand comprises an amino acid sequence selected from the group consisting of amino acid residues 28-160 of SEQ ID NO:2, and amino acid residues 28-182 of SEQ ID NO:2.
14. (Original) The chimeric protein of claim 1, wherein the tumoricidal agent is an antibody.
15. (Original) The chimeric protein of claim 14, wherein the antibody is selected from the group consisting of an intact antibody, a Fab fragment, a Fab' fragment, a F(ab')₂ fragment, a Fv

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fragment, a diabody, a single-chain antibody and a multi-specific antibody formed from antibody fragments.

16. (Currently amended) The chimeric protein of claim 14, wherein the antibody is selected from the group consisting of an anti-p230 antibody, an ~~anti-CD29~~ anti-CD20 antibody, an anti-Her2 antibody, an anti-Her3 antibody, an anti-Her4 antibody, an anti-EGFR antibody or a biologically active fragment thereof.

17. (Original) The chimeric protein of claim 14, wherein the antibody is a human or humanized antibody.

18. (Original) The chimeric protein of claim 1, wherein the tumoricidal agent is selected from the group consisting of Fas ligand, TNF, TRAIL, or a biologically active extracellular domain thereof.

19. (Original) The chimeric protein of claim 1, wherein the Flt3 ligand is located at the N-terminus of the chimeric protein.

20. (Original) The chimeric protein of claim 1, wherein the Flt3 ligand is located at the C-terminus of the chimeric protein.

21. (Currently amended) The chimeric protein of claim 1, wherein the Flt3 ligand and the ~~tumoricidal~~ targeting agent is separated by a linking peptide.

22. (Original) The chimeric protein of claim 21, wherein the linking peptide is (Gly4Ser)₃.

23. (Original) The chimeric protein of claim 1, which comprises the amino acid sequence set forth in SEQ ID NO:24, SEQ ID NO:26, SEQ ID NO:28, SEQ ID NO:30, SEQ ID NO:32, SEQ

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ID NO:34, SEQ ID NO:44, SEQ ID NO:46, SEQ ID NO:48, SEQ ID NO:58, SEQ ID NO:60, SEQ ID NO:62, SEQ ID NO:64, SEQ ID NO:66 or SEQ ID NO:68.

24-34 (Cancelled)

35. (Currently amended) A pharmaceutical composition comprising an effective amount of a chimeric protein of claim 1 ~~comprising a Flt3 ligand and a proteinuous or peptidyl agent~~, and a pharmaceutically acceptable carrier or excipient.

36. (Currently amended) A kit comprising an effective amount of a chimeric protein of claim 1 ~~comprising a Flt3 ligand and a proteinuous or peptidyl agent~~, and an instruction means for administering said chimeric protein.

37. (Currently amended) A method for treating neoplasm in a mammal, which method comprises administering to a mammal to which such treatment is needed or desirable, an effective amount of a chimeric protein of claim 1 ~~comprising a Flt3 ligand and a proteinuous or peptidyl agent~~.

38. (Original) The method of claim 37, wherein the mammal is a human.

39. (Original) The method of claim 37, wherein the neoplasm is melanoma, breast cancer or hepatocellular carcinoma.

40. (Currently amended) A combination, which ~~combinaiton~~ combination comprises:

- a) an effective amount of a chimeric protein of claim 1 ~~comprising a Flt3 ligand and a proteinuous or peptidyl agent~~; and
- b) an effective amount of an anti-neoplasm agent.

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41. (Original) The combination of claim 40, wherein the anti-neoplasm agent is an agent that treats melanoma, breast cancer or hepatocellular carcinoma.
42. (Original) A method for treating neoplasm in a mammal, which method comprises administering to a mammal to which such treatment is needed or desirable, an effective amount of a combination of claim 40.
43. (Currently amended) A method for inducing caspase-3 mediated apoptosis in a cell, which method comprises administering to a cell to which such induction is needed or desirable, an effective amount of a chimeric protein of claim 1 comprising a Flt3 ligand and a proteinuous or peptidyl agent.
44. (Original) The method of claim 43, wherein the cell is a mammalian cell.
45. (Original) The method of claim 44, wherein the cell is a mammalian neoplasm cell.
46. (Original) The method of claim 43, wherein the cell is contained in a mammal.
47. (Currently amended) A vaccine comprising an effective amount of a chimeric protein of claim 1 comprising a Flt3 ligand and a proteinuous or peptidyl agent, and an immune response potentiator.
48. (Currently amended) A method for eliciting an anti-neoplasm immune response in a mammal, which method comprises administering to a mammal to which such ~~elicitation~~ elicitation is needed or desirable, an effective amount of a vaccine of claim 47.
49. (Currently amended) A method for producing a tumor-specific lymphocyte, which method comprises administering to a mammal an effective amount of a chimeric protein of claim

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~~1 comprising a Flt3 ligand and a proteinous or peptidyl agent~~ to generate a tumor-specific lymphocyte, and recovering said generated tumor-specific lymphocyte from said mammal.

50. (New) A chimeric protein comprising a Flt3 ligand, or a biologically active fragment thereof, and an antibody which inhibits proliferation or reduces viability of tumor cells.

51. (New) The chimeric protein of claim 50, wherein the antibody is selected from the group consisting of an intact antibody, a Fab fragment, a Fab' fragment, a F(ab')₂ fragment, a Fv fragment, a diabody, a single-chain antibody and a multi-specific antibody formed from antibody fragments.

52. (New) The chimeric protein of claim 50, wherein the antibody is selected from the group consisting of an anti-p230 antibody, an anti-CD20 antibody, an anti-Her2 antibody, an anti-Her3 antibody, an anti-Her4 antibody, an anti-EGFR antibody or a biologically active fragment thereof.

53. (New) The chimeric protein of claim 50, wherein the antibody is a human or humanized antibody.

54. (New) The chimeric protein of claim 50, wherein the Flt3 ligand is located at the N-terminus of the chimeric protein.

55. (New) The chimeric protein of claim 50, wherein the Flt3 ligand is located at the C-terminus of the chimeric protein.

56. (New) The chimeric protein of claim 50, wherein the Flt3 ligand and the antibody is separated by a linking peptide.

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57. (New) The chimeric protein of claim 57, wherein the linking peptide is (Gly4Ser)3.